

REMARKS

Reconsideration of the instant application is respectfully requested. The present amendment is responsive to the Office Action of March 10, 2006, in which claims 1-16 are presently pending. Of those, claims 1-5, 8-13 and 16 remain rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,646,259 to Chang, et al. In addition, claims 6, 7, 14 and 15 remain rejected under 35 U.S.C. §103(a) as being unpatentable over Chang, in view of U.S. Patent 6,303,399 to Engelmann, et al. A courtesy copy of the claims in their present form is provided herein. For the following reasons, however, it is respectfully submitted that the application is now in condition for allowance.

In the Final Office Action, the Examiner takes the position that (1) Chang does in fact teach a localized deposition of the initial conductive layer, that (2) the conductive layer 104 is formed using an ion miller, and that (3) low-energy, e-beam deposition and ion beam deposition are "notoriously known" as being analogous in the art.

The Applicant respectfully submits that a careful review of the Chang specification reveals that the conductive layer 104 would not be locally deposited as presently claimed; otherwise, the layer 104 would not perform its stated function of isolating the resist layer 102 from moisture and oxidation. "The conductive layer 104 is used to isolate the photoresist layer 102 from moisture environment and insulates the photoresist layer 102 from oxidation." (column 3, lines 47-50)

In response, the Examiner indicates that it would not make sense to coat the entire substrate with the conductive layer via an ion miller, and that there is no motivation in Chang to form a blanket layer. As stated above, the motivation would be to accomplish the state purpose of isolating the photoresist layer 102. Were the conductive layer 104 only formed locally, the remaining resist 102 would be left unprotected. Furthermore (and contrary to the Examiner's statement on pages 3-4 of the Final Office Action), it is

not the conductive layer 104 but rather the dielectric layer 106 that is formed by sputtering with an ion miller. The cited portion of Chang in support of this position is col. 3, lines 58-60. However, this section is clearly discussing sputtering of the dielectric layer 106. In contrast, in col. 3, lines 30-33 (discussing formation of the conductive layer 104 by a DC PVD sputtering process), ion milling is not mentioned. In fact, Chang actually says that the conductive layer 104 can avoid the charging effect resulting from the use of electron or ion beams (col. 3, lines 50-52), thus it would not make sense that ion beams would be used to initially deposit the conductive layer 104 in the first place.

Notwithstanding, even if Chang were to teach forming the conductive layer with an ion miller, the Applicant respectfully submits that this is not an analogous method in the art with respect to initial deposition with low energy electron beams. The present application specifically teaches that the use of low energy electron beams to form the initial conductive layer avoids the adverse affects (e.g., edge rounding, topography damage) associated with ion beam encapsulation. (Specification, paragraph [0019])

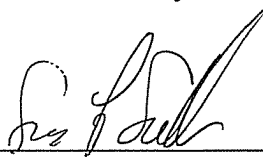
Accordingly, the Applicant respectfully requests that since the present claims are not obvious in view of Chang or any of the other references of record, the final §103 rejections be withdrawn.

For the above stated reasons, it is respectfully submitted that the present application is now in condition for allowance. No new matter has been entered and no additional fees are believed to be required. However, if any fees are due with respect to this Amendment, please charge them to Deposit Account No. 09-0458 maintained by Applicant's attorneys.

Respectfully submitted,
WEI LU

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